

LYU TSYUN'-KHUA [Liu Ch'ün-hua]; PASHINKIN, A.S.; NOVOSELOVA, A.V.

Germanium - sulfur system. Dokl. AN SSSR 151 no.6:1335-1338
Ag '63. (MIRA 16:10)

1. Moskovskiy gosudarstvennyy universitet im. M.V.Lomonosova.
2. Chlen-korrespondent AN SSSR (for Novoselova).

Investigation of the system germanium-sulfur and germanium-selenium.
N. S. Pashinkin, Lyu-Tsun'-Khua, A. V. Novoselova (10 minutes).

(Not presented.)}

Thermodynamic investigation of alloys of the system gallium-antimony.
L. N. Gerasimenko, N. A. Goryunova, I. V. Kirichenko, L. N. Lozhkin,
A. G. Morachevskiy (10 minutes).

Report presented at the 3rd National Conference on Semiconductor Compounds,
Kishinev, 16-21 Sept 1963

"APPROVED FOR RELEASE: 06/15/2000

CIA-RDP86-00513R001239320018-2

PASHINKIN, A.B., kandidat fysik

Vapenforskningsinstitutet, Stockholm, Sweden
1961-1964, med stipendium.

APPROVED FOR RELEASE: 06/15/2000

CIA-RDP86-00513R001239320018-2"

PASHINOV, M.I.

USSR/Forestry - Forest Economy.

J-3

Abs Jour : Referat Zhur - Biologiya, No 16, 25 Aug 1957, 69089

Author : Pashinov, M.I.

Inst :

Title : The Role of Young and Spindly Growth in Renewal of Pine.
Cuttings in the Mountainous Taiga of the Mansky District.

Orig Pub : Tr. Sibirsk. lesotekhn. in-ta, 1956, No 12, 117-133

Abstract : The tests were conducted in the Mansky district of Krasnoyarsk region. Forest culture characteristics of young and spindly growth under cover of plantings is described. It is noted that in the process of cuttings and tree age of cuttings, saplings come from the undercover area in quantities sufficient for renewal of the filled forest. Data are given of the progress of renewal on forest cuttings and on preservation of young and spindly growth at a different number of years after the cuttings. It is noted that new growth on cuttings serves as a basis

Card 1/2

- 15 -

PASHINOV, M.I.

Diseases and pests of the Siberian fir in the Biryusa forest
tract and their economic significance. [Trudy] STI 35:22-33
'63 (MIRA 18:2)

PASHINOV, M.I., Cand Agr Sci -- (diss) "Cutting and
reseeding of pine forests under the mountainous conditions
of the Manskiy Rayon." [Mos], 1958. 10 pp (Min of Higher
Education USSR. Mos Forestry Engineering Inst. Siberian
Forestry Engineering Inst). 120 copies.

(KL, 12-58, 100)

-65-

PASHINOV, P.K.

Treatment of vaginal trichomoniasis in fangotherapeutic resorts.
Akush. ginec. no.6:59-61 Nov-Dec 1953. (CIML 25:5)

1. Saki.

PASHINOV, P.K.

Methode in metrosalpingography. Akush. i gig. 33 no.2:81-83
Mr-Ap '56. (MLRA 9:?)
(GENITALIA, FEMALE, radiography
metrosalpingography, methods)

PASHINOV, P.K. (Saki).

Unpublished material

Treatment of vaginal trichomoniasis in sanatoriums and therapeutic resorts.

Akush. i gin. no.t:59-61 N-D '53.

(MLRA 7:1)

(Vagina--Diseases) (Trichomoniasis)

(Earth's Medical and surgical uses of)

KUSHNER, Kh.P., otv. red.; GUSEVICHKA, I.Ie., red.; TVERITINOV,
S.L., red.; KOSTYK, L.V., red.; PREDERIK, V.I., red.
~~PASCHINSKII, S.A., red.; RUMAKOV, I.V., red.; PRESENT,~~
I.I., red.; SUDOV, A.S., red.; FETISOV, N.I., red.; red.
va; M'YANOV, A.G., tekhn. red.

(Genetics in agriculture) Genetika - sel'skogo khoziaistva.
Moskva, Izd-vo AN SSSR, 1963. 704 p. MIRE 1010

I. Akademiya nauk SSSR. Institut genetiki.
(Plant breeding) (Stock and stockbreeding)

GLUSHCHENKO, I.Ye., red.; NUZHIN, N.I., red.; PASHINSKAYA, T.N., red.;
PREZENT, I.I., red.; FEYGINSON, N.I., kand.sel'skokhoz.nauk, red.;
OZEROV, V.N., red.; ZUBRILINA, Z.P., tchhn.red.

[Achievements in the field of biological sciences; materials of the
anniversary session of the All-Union Academy of Agricultural Sciences
dedicated to the centennial of L.V.Michurin's birth] Dostizheniya
biologicheskoi nauki; materialy iubileinoi sessii VASKHIL, posviashchennoi 100-letiiu so dnia rozhdeniya I.V.Michurina. Pod red. I.E.
Glushchenko i dr. Moskva, Gos.izd-vo sel'khoz.lit-ry, 1958. 374 p.

(MIRA 12:10)

1. Vsesoyuznaya akademiya sel'skokhozyaystvennykh nauk imeni V.I.
Lenina. 2. Moskovskiy gosudarstvennyy universitet, kafedra genetiki
i selektsii (for Feyginson).

(Biology)

"APPROVED FOR RELEASE: 06/15/2000

CIA-RDP86-00513R001239320018-2

PASHINSKIY, A.F.

Study of the alluvial deposits in the Pselnaya River,
Trudy GGI no.111:15c-173 '64.
(MERA 17:c)

APPROVED FOR RELEASE: 06/15/2000

CIA-RDP86-00513R001239320018-2"

PASHINSKIY, A.Z.

"Voice of the sea." Meteor.i.gidrol. no.9:48 S '67. (MIRA 1:1).
1. Upravleniye gidrometeorologicheskoy sluzhby Turkmenskoy SSR.

OKSENICH, Igor' Gur'yevich; ORLOVSKIY, Nikolay Sergeyevich;
PASHINSKIY, Aleksandr Zakharovich; ZLOBINA, M., red.;
SAKHATOV, B., tekhn. red.

[Climate of Turkmenia] Klimat Turkmenii. Ashkhabad, Turkmen-
gosizdat, 1962. 89 p. (MIRA 16:5)
(Turkmenistan--Climate)

TOMASHEVICH, V.V.; PASHINSKIY, G.L.

Importance of presacral novocaine block in the treatment of cystitis
and cystalgia. Sov.zdrav.Kir. no.2:31-34 Kp.-Ib 198. (MIRA 12:12)

1. Iz fakul'tetskoy khirurgicheskoy kliniki zav. - prof. A.N. Kruglov)
Kirgizskogo gosmedinstituta i tret'yay polikliniki g. Frunze (gl.vrach -
Vasil'chenko).

(NOVOCAINE)

(BLADDER--DISEASES)

ARIFOV, U.A.; KLEYN, G.A.; OKUN', G.S.; LAPIDUS, L.A.; PASHINSKIY, S.Z.;
KIM, G.S.

Physical and mechanical properties of silk and fabrics manu-
factured from cocoons killed by gamma rays. Izv. AN Uz. SSSR.
Ser. fiz. mat.nauk 6 no.2:59-66 '62. (MIRA 15:9)

1. Akademiya nauk UzSSR.
(Sericulture) (Gamma rays--Industrial applications)

I 9959-65

EMT(m)/EPF(c)/IPF(n)-2/EWP(j)

Po-4/Pt-4/Pd-4 AFMDC GG/MLK/RM

ACCESSION NR:AT4046910

S/0000/64/000/000/0044/0048

AUTHOR: Akbayev, R. A.; Mamatov, B. S.; Pashinsky, S. Z.

TITLE: Investigation of the thermal conductivity of liquid paraffin in a field
of high-energy Gamma radiation BSOURCE: AN UzSSR, Institut yadernoy fiziki. Radiatsionnye effekty v
kondensirovannikh sredakh (Radiation effects in condensed media). Tashkent,
Izd-vo Nauka UzSSSR, 1964, 44-48TOPIC TAGS: thermal conductivity, liquid paraffin, Gamma-radiation, paraffin
conductivityABSTRACT: In the presence of γ -radiation, complex chemical molecules disintegrate into smaller fragments and electrons are liberated. These electrons can conditionally be considered as free, thus changing the thermophysical properties of materials, especially the thermal conductivity. The present authors studied the changes in thermal conductivity of liquid paraffin in a γ -radiation field as a function of the γ -radiation dose. The experimental set-up, consisting essentially of concentric cylinders and thermocouples, is described and equations are derived for the coefficient of thermal conductivity as corrected for the heating

Card 1/2

L 9969-65

ACCESSION NR: AT4046910

effects due to γ -radiation in the inner cylinder. A comparison of temperature measurements with air and with paraffin showed that the heat liberated by radiochemical processes in the paraffin can be neglected. Experimental data on the thermal conductivity of liquid paraffin as a function of the temperature and the γ -radiation dose show a linear relationship in both cases (inverse and direct, respectively). The thermal conductivity of liquid paraffin is increased 4.9% in a γ -radiation field of 100 r/sec, and 10% in a field of 250 r/sec. Orig. art. has: 5 figures and 6 formulas.

ASSOCIATION: Institut yadernoy fiziki AN UzSSR (Nuclear Physics Institute, AN UzSSR)

SUBMITTED: 01Feb64

ENCL: 00

SUB CODE: GP,NP

NO REF Sov: 002

OTHERS: CDO

Card 2/2

1. V. A. Stepanov
2. V. A. Stepanov

Transactions of the Tashkent (Cont.)

CONTINUATION

Institute of Physics and Mathematics, Ya. Kh. Turabulov, Doctor of Physical Sciences. Ed., I. I. Khamidov; Tech. Ed.; A. G. Pshenichova.

PUBLISHER: The publication is intended for scientific workers and technical personnel interested in radioactive materials. Nuclear reactions are used for research in medical, biological, geographical, and technological fields.

CONTENTS: This collection of 133 articles represents the second volume of the third edition of the Tashkent Conference on the Industrial Uses of Atomic Energy. It is individual material, and with a wide range of problems in the field of nuclear radiation, including: production and chemical analysis of radioactive isotopes; investigation of the kinetics of chemical reactions by means of isotopes; application of spectral analysis for the manufacturing of radioactive preparations; radioactive methods for determining the content of elements in the rock; and an analysis of methods for obtaining pure substances. Certain

Card 2/20

Transactions of the Institute (Cont.)

SOV/5410

Instruments used, such as automatic regulators, flowmeters, level gauges, and high-sensitivity gamma-relays, are described. No particularities are mentioned. References follow individual articles.

TABLE OF CONTENTS:

RADIOACTIVE ISOTOPES AND NUCLEAR RADIATION
IN ENGINEERING AND GEOLOGY

Lobanov, Ye. N. [Institut Yadernoy Fiziki UzSSR - Institute of Nuclear Physics AS UzSSR]. Application of Radioactive Isotopes and Nuclear Radiation in Uzbekistan

7

Talsar, I. M., and V. A. Yanushkovskiy [Institut fiziki AN Latv SSR - Institute of Physics AS Latvian SSR]. Problems of the Specification of Automatic-Control Apparatus Based on the Use of Radioactive Isotopes

8

Card 3/20

Transactions of the Tashkent (Cont.)

SOV/5410

F. I. S., A. M., V. B. Chirayev, and V. A. Gol'din [Fiziko-
tekhnicheskiy institut im. L. Ya. Karpova - Fiziko-tekhnicheskiy in-
stitut im. L. Ya. Karpova]. Industrial Plant With Source of
Radiation for Stimulating Radiation-Chemical Apparatus and Con-
ducting Investigations (X-10,000)

100

Rimov, A. Kh. [Physico-chemical Institute named L. Ya. Karpov].
Scientific and Technical Principles in Developing Radiation-
Chemical Apparatus

107

Arifov, U. A., S. V. Starodubtsev, Yu. N. Lobanov, G. A. Kleym,
and S. Z. Pushinskii [Institute of Nuclear Physics of USSR].
Plants of the Academy of Sciences of the USSR for
Various Cancer-Radiation Studies and Semi-Industrial Experiments 108

Karpov, A. Kh., B. I. Vaynshteyn, L. S. Gusev, Yu. S. Ryabukhin,
and N. P. Syrikus [Physico-chemical Institute named L. Ya.
Karpov]. Absorption of Gamma-Radiation in Macrosystems

123

Card 8/20

ARIFOV, U.A., akademik; KLYUN, G.A.; SKUN', G.S.; PASHINSKIY, S.Z.;
OSIPPOVA, L.Kh.; FAYERMAN, V.T.

Vacuum investigation of deformations of natural silk irradiated
by gamma rays. Izv. AN Uz.SSR.Ser.fiz.-mat.nauk no.3:32-37
'60. (MIR 13:8)

1. Institut yadernoy fiziki AN UzSSR i Uzbekskiy nauchno-
issledovatel'skiy institut shelkovoy promyshlennosti. 2. AN
UzSSR (for Arifov).

(Gamma rays)

(Silk)

(Materials, Effect of radiation on)

ARTOFV, U. A., BARNOV, V. A., CHMARSKY, I. A., KLEIN, M. A., LASHKIRAY, S. I.,
TIGHELIDZE, L. N., TSATSKHADZE, T. V., CHIKELIDZE, T. H., and SHERKOV, S. I.

"Treatment of Silkworm 'caterpillars' by Radiation.

paper to be presented at the 'Int'l. Conf. on the peaceful uses of ~~MAX~~ Atomic Energy, Geneva, 1 - 12 Sept. .

ARIFOV, U.A.; KLEYN, G.A.; PASHINSKII, S.Z.; LAPIDUS, L.A.; ANASTASOV, S.A.; ZAUROV, R.I.; KORDUB, N.V.

Study on the gamma-ray method for killing the silkworm and preserving the cocoon. Izv.AN Uz.SSR.Ser.fiz.-mqt.nauk no.5: 12-18 '59. (MIRA 13:5)

1. Institut yadernoy fiziki AN UzSSR i Uzbekskiy nauchno-issledovatel'skiy institut shelkovoy promyshlennosti.
(Gamma rays--Industrial applications)
(Sericulture)

PASHINSKY, S.Z.

- PLN - WORK REFLECTIONS
807/2713

International Conference on the Potential Use of Atomic Energy. Geneva, 1958.

Bulletin Sovjeticheskogo universiteta polucheniya i primeneniya isotopov (Reports of Soviet Scientists on Production and Application of Isotopes). Moscow, Akademiata, 1959. 540 p. (Series: Izdat. tretyy, vol. 6) 60,000 copies printed.

Ref. (Title page) G.Y. Karpynsky, Academician, and I.I. Novikov, Corresponding Member, USSR Academy of Sciences; Ed. (Trade book): T.D. Andreyenko, Prof., Doc. Sci. T.D. Andreyenko.

Review: This book is intended for scientists, engineers, physicians, and biologists interested in the production and application of atomic energy to peaceful uses; for professors and graduate and undergraduate students of higher technical schools where nuclear science is taught; and for the general public interested in atomic science and technology.

Conclusion: This is volume 6 of a 6-volume set of reports delivered by Soviet scientists at the Second International Conference on the Peaceful Uses of Atomic Energy held in Geneva from September 1 to 15, 1958. Volume 6 contains 52 reports on 11 modern methods for the production of stable radioactive isotopes and their labeled compounds. (2) Research results obtained with the aid of isotopes in the field of chemistry, metallurgy, machine building, and agriculture, and (3) dosimetry of ionizing radiation. Volume 6 was edited by S.Y. Levinson, Candidate of Medical Sciences; V.A. Pashkov, Candidate of Chemical Sciences, and V.V. Seden, Candidate of Medical Sciences. See Sov. AIL for titles of volumes of this set. Refer- ences appear at the end of the articles.

25. Chudin, V.I., S.I. Matveev, and N.Y. Timchenko-Bereznyak. Radioactive Isotope for Solving Problems in Hyrobiology [Report No. 2317]

26. Chudin, V.I. Absorption phenomena in the lateral glass (Report No. 2300)

27. Emel'yanov, I.A. (Decreased). Salter tracer formation of the skin, its distribution in the albumen of the egg, and its secretion from the ovaries of the animal (Report No. 2314)

28. Andreev, Odo., I.D. Arshavskaya, V.A. Baranov, G.I. Dzhamalidze, G.A. El'sayev, S.G. Fomichev, L.M. Tishchikova, T.V. Tsvetushkina, T.S. Cherednichenko, and V.P. Danilevich. Radiation killing of larvae of the Malpighi-flying entomophagous [Report No. 2315]

29. Matveev, S.I. and L.Y. Neletitsky. Studying the Effect of Ionizing Radiation on the Protoplasts of Potato Tissues with Respect to Trehalose Storage [Report No. 2316]

15(4)

06375

AUTHORS:

Arifov, U.A., Kleyn, G.A., Pashinskiy, S.Z., SOV/166-59-5-2/9
Lapidus, L.A., Anastasov, S.A., Zeurov, R.I.,
and Kordub, N.V.

TITLE:

The Investigation of the Method of γ -Rays for the Pickling and
Conservation of the Chrysalises of the Silkworm

PERIODICAL:

Izvestiya Akademii nauk Uzbekskoy SSR, Seriya fiziko-
matematicheskikh nauk, 1959, Nr 5, pp 12-17 (USSR)

ABSTRACT:

The paper is a continuation of [Ref 1,2,3]. For a great number
(700 kg) of living chrysalises the authors investigate the
effect of a γ -irradiation on the quality of the chrysalises
and the raw silk obtained out of them. It is stated: 1. The
chrysalises irradiated with γ -rays Co⁶⁰ yield more raw silk
than chrysalises submitted to hot air. 2. During the spooling
the silk thread tears seldom, the mean length of the thread is
larger. 3. Mildewing during the conservation is seldom, it
appears by the humidity separated by the chrysalises. 4. A
complete elimination of the mold is only possible if the moisture

Card 1/2

The Investigation of the Method of γ -Rays for the Pickling and Conservation of the Chrysalises of the Silkworm.

06375
SOV/166-59-5-2/9

content can be diminished.
There is 1 figure, and 4 Soviet references.

ASSOCIATION: Institut yadernoy fiziki AN Uz SSR; Uzbekskiy nauchno-issledovatel'skiy institut shelkovoy promyshlennosti (Institute of Nuclear Physics AS Uz SSR; Uzbek Scientific Research Institute of Silk Industry)

SUBMITTED: March 2, 1959

Card 2/2

ARIPOV, U.A.; GUMANSKIY, G.A.; KLEYN, G.A.; PASHINSKIY, S.Z.; SHCHENKOV, S.N.

Physical and technological properties of silkworm cocoons
killed by γ -rays. Izv. AN Uz. SSR. Ser. fiz.-mat. nauk
no.3:5-9 '58.

(MIRA 11:10)

1. Fiziko-tehnicheskiy institut AN UzSSR.
(Silkworms) (Gamma rays--Industrial application)

AUTHORS:

Mikurov, B.A., Okun', G.S., Pashinsky, S.Z.,
Rubinov, E.B., Novikov, A.B., and Kostin, B.L.

SOV/10-58-6-6 8/44

TITLE:

An Automatic Cocoon-Winder (Kokonomotai nyjy avtomat)

PERIODICAL:

Byulleten' izobreteniy, 1958, Nr 6, p 139 USSR

ABSTRACT:

Class 76c, 28⁵⁰. Nr 113850 (329551/280⁷ of 21 March
1947). Submitted to the Committee for Inventions
and Discoveries at the Ministers Council of USSR.
An automatic winder for synthetic silk; including
a primary basin (predtaz'ye) a winding basin a
feed mechanism passing cocoons from the primary
basin into the winding basin, a catching device
and an automatic device for controlling the thin-
ness of the filament according to its elastic prop-
erties; the latter device consists of a container
filled to a constant level with running liquid and
provided with a valve controlled by a two-arm lever.
The valve regulates the quantity of liquid running
out according to the thinness of silk filament
running off the catching device.

Card 1/1

USSR / Farm Animals. Silkworm.

abs Jour: Ref Zhur-Biol., No 12, 1958, 54891.

Author : Arifov U. A., Gumanskiy G. A., Kleyn G. A., Fash-

Inst : inskiy S. Z., Schchenkov S. N.

Title : Not given.

The Effect of Gamma Rays on the Live Chrysal-

lides of the Mulberry-Feeding Silkworm.

Orig Pub: Dokl. AN UzSSR, 1957, No 4, 9-12.

Abstract: The cocoons with live pupae of the breed
Soviet Baghdad were subjected to gamma irradiation (source Co60, intensity 15 curies) with doses of 2 to 700 thousands r. With the increase of the doses of irradiation, the death rate of the pupae was augmenting. Irradiation with a dose of 240 thousands r. was destroying all 5-day old pupae and the irradiation with a

Card 1/2

69

USSR / Farm Animals. Silkworm.

Jour: Ref Zhur-Biol., No 12, 1958, 54891.

Abstract: dose of about 340 thousands r. was causing the

death of more mature pupae. The cocoons containing pupae killed by irradiation at a relative humidity of the air of 90%-92% and 25%-27% were not molding nor rotting for a period of 90 days. On the other hand, the cocoons containing pupae killed by heating, were being covered with mold under the same conditions after 5-7 days.

The gamma irradiation of the raw cocoons pasteurizes them and turns pupae into an unsuitable medium for the development of pathogenous microorganisms.

Card 2/2

PASHINSKIY, V.F.

Determining the operative capacity of a conic mill transmission.
Trudy LTITSBP no.12:348-347 164.

Movement of the stock in a conical mill. Trud. 348-358

(MIRA 18:8)

KHLEBNIKOV, A.A.; PASHINSKIY, V.F.

Some peculiarities of the performance of conic grinders.
Bum. prom. 36 no.11:18-20 N '61.
(MIRA 15:1)

1. Leningradskiy tekhnologicheskiy institut tsellyulocnobumazhnoy promyshlennosti.
(Papermaking machinery)

PASHINSKIY, V.F.

Obtaining clean surface pig ingots from pouring machines. Metallurg
7 no.3:10 Mr '62.
1. Makeyevskiy metallurgicheskiy zavod.
(Blast furnaces)

PASHINSKIY, V.F.

Errors in the control of gas flow and materials distribution
in the blast furnace top. Metallurg 6 no.10:10-12 0 '61.

1. Makeyevskiy metallurgicheskiy zavod.
(Blast furnaces--Equipment and supplies)

(MIRA 14:c)

GORODETSKIY, L.N., inzhener-mekhanik; PASHINSKIY, V.F.

In the blast furnace plants of the country. Metallurg 6
no.9:6-7 S '61.
(MIRA 14:9)

1. Makoyevskiy metallurgicheskiy zavod (for Pashinskiy).
(Blast furnaces)

PASHINTSEV, A.A., prof. (Moskva)

On the 50th anniversary of V.I.Lenin's brilliant work "Materialism
and Empirio-criticism." Klin.med. 37 no.8:5-7 Ag '59.
(BOOKS) (MIRA 12:11)

PASHINTSEV, I.A.

Good beginning. Sov.zdrav. 19 no.12:88 '60.
(PUBLIC HEALTH—CONGRESSES)

(MIRA 14:3)

PASHINTSEV, I.A., prof.; TARASOV, K.Ye., kand. filosofskikh nauk (Moskva)

Etiology from the viewpoint of materialistic dialectics. Sov.zdrav.
22 no.2:31-37 '63. (MIRA 16:2)

1. Moskovskiy meditsinskiy institut imeni I.M. Sechenova.
(DISEASES—CAUSES AND THEORIES OF CAUSATION)
(DIALECTICAL MATERIALISM)

PASHINPSEV, I.A., prof. (Moskva)

The wrong way. Sov.zdrav. 19 no.2:54-57 '60.
(PUBLIC HEALTH)

(MIA 13:5)

PASHINTSEV, I.A., prof. (Moskva)

Ninetieth anniversary of the publication of the first volume of K.Marx's
"Das Kapital" in Russian. Sov. zdrav. 21 no.5:9-13 '62. (MIRA 15:5)
(MARX, KARL, 1818 -1883)

PASHINTSEV, I.A.

"Collected papers by students at the Sechenov (First Moscow) Medical Institute." Reviewed by I.A. Pashintsev. Sov.zdrav. 17 no.2:59 P '58.
(MIR' 13:1)
(MEDICINE)

24 5 1

S/120/62/000/005/035/036
E194/E535

AUTHORS: Potrekin, A.Ya. and Pashintsev, Yu.I.

TITLE: A universal device for applying strain and heat treatment to semiconductors

PERIODICAL: Pribory i tekhnika eksperimenta, no.5, 1962, 196-197

TEXT: Apparatus was required in which the influence of dislocation and heat treatment on the properties of semiconductors could be studied. An apparatus is described and diagrammatically illustrated which can test a sample of 20 x 3 x 3 mm in bending and torsion at temperatures up to 1300°C. The maximum rate of heating is 100°C/min with a 2 kW heater, the temperature error is ± 5°C. The equipment is built of pure graphite (for the heaters) and quartz with tantalum screens to ensure that the semiconductor is not contaminated. Evacuation is effected by a vacuum and a backing pump. A program controller is used to set up and maintain the required thermal conditions, its schematic circuit diagram is given. There are 3 figures.

ASSOCIATION: Gosudarstvennyy nauchno-issledovatel'skiy i proyektuyy institut redkometallicheskoy promyshlennosti

Card 1/2

JC

A universal device for applying ... S/120/62/000/005/035/036
E194/E535

(State Scientific Research and Design Institute of
the Rare Metal Industry)

SUBMITTED: December 22, 1961

✓C

Card 2/2

5 (4)
AUTHORS:

Sirota, N. N., Academician, AS BSSR,
Pashintsev, Yu. I.

SOV/20-127-3-37/71

TITLE:

Dynamic Displacements of Atoms and the Linear Expansion
Coefficient of Aluminum-, Gallium-, and Indium Arsenides

PERIODICAL:

Doklady Akademii nauk SSSR, 1959, Vol 127, Nr 3, pp 609-611 (USSR)

ABSTRACT:

In continuation of observations made by Sirota (Ref 1) the connection between root mean square atomic displacements in the crystal lattice of the semiconductor compounds mentioned in the determination of the characteristic coefficient is investigated. For the expansion coefficient of the compounds mentioned the data of the temperature and the linear obtained from X-ray pictures, the centers of temperature intervals for which the characteristic coefficient were used. Table 1 shows the data the logarithm of the ratio of the peaks of the blackening lines $\left(\frac{I_{T_1}}{\ln \frac{I_{T_1}}{I_{T_2}}} \right)$ determined from the microphotogram, root mean square of the dynamic displacement $\overline{u_T^2}$, the linear expansion coefficient α

Card 1/3

APPROVED FOR RELEASE

Dynamic Displacements of Atoms and the Linear Expansion SOV/20-127-3-37/71
Coefficient of Aluminum-, Gallium-, and Indium Arsenides

and its square. From the theory of the thermal dissipation of X-rays by Debye-Waller, the connection of line intensity at various temperatures (T_1 and T_2) is given by the expression

$\ln \frac{I_{T_1}}{I_{T_2}} = 16\pi^2 \left(\frac{u_{T_2}^2 - u_{T_1}^2}{\lambda^2} \right) \frac{\sin^2 \theta}{\lambda^2}$ (1), and the dependence of u_T^2 on the characteristic temperature $u_T^2 = \frac{3h^2 T}{4\pi^2 m k \theta^2} \left[\phi(x) + \frac{x}{4} \right]$ (2)
with $\phi(x)$ -Debye function, m - average mass of the atom $x = \frac{h\nu}{kT}$ and ν limit frequency of the atoms. From the relation (2), to which attention had already been drawn by Ioffe (Ref 7), it may be seen that with an increase of u_T^2 the characteristic temperature θ and thus also the threshold frequency decreases. Figure 1 shows the dependence of u_T^2 on T . The greatest u_T^2 was found in the case of indium arsenide, the smallest in that of AlAs. With increasing temperature, u_T^2 in the case of all compounds increases according to a similar law. Figure 2 shows the dependence of

Card 2/3

Dynamic Displacements of Atoms and the Linear Expansion
Coefficient of Aluminum-, Gallium-, and Indium Arsenides SOV/20-127-3-37/71

\bar{u}^2 on α^2 . The values are on a straight line passing through the origin of coordinates. Thus, there is direct proportionality for the investigated compounds within the temperature interval of 200-650°. There are 2 figures, 1 table, and 7 references, 6 of which are Soviet.

ASSOCIATION: Gosudarstvennyy nauchno-issledovatel'skiy i proyektnyy institut
redkometallicheskoy promyshlennosti (State Scientific Research
and Planning Institute for the Rare Metals Industry)

SUBMITTED: May 5, 1959

Card 3/3

PASHINTSEV, Yu. I., Candidate Phys-Math Sci (diss) -- "Characteristic temperatures and coefficients of linear expansion of the arsenides of aluminum, gallium, and indium". Minsk, 1959. 12 pp (Min Higher Educ USSR, Beloruss State U im V. I. Lenin), 160 copies (KL, No 25, 1959, 127)

PASHINTSEV, Yu.I.; SIROTA, N.N.

Temperature relationship between characteristic temperatures
and coefficients of linear expansion of aluminum, gallium, and
indium arsenides. Dokl.AN BSSR 3 no.2:38-40 F '59.

(Arsenides)

(MIRA 12:5)

SIROTA, N.N.; PASHINTSEV, Yu.I.

Determining the characteristic temperature and coefficients
of linear expansion for indium and gallium arsenides [with
summary in English]. Inzh.-fiz.zhur. no.12:38-42 ' 58.

1. Fiziko-tehnicheskiy institut AN BSSR, g. Minsk, Moskov-
skiy institut tsvetnykh metallov i zolota imeni M.I. Kalinina,
g. Moskva.

(Indium arsenide) (Gallium arsenide)

85296

9.7140

S/019/60/000/016/096/134
A152/A029

AUTHORS:

Lanin, N.D.; Pashintseva, V.I.; Vygon, V.G.; Shadrin, V.D.

TITLE:

A Pure Time Delay Unit

PERIODICAL: Byulleten; izobreteniy, 1960, No. 16, p 52

TEXT: Class 42m, 15. No. 131142 (646131/25 of December 7, 1959) This pure time delay unit for converting the function $f(t)$ into the function $f(t - \tau)$, containing a memory circuit, an encompassing circuit (obegayushchaya tsepochka), a time pulse generator, an input and an output collector both coupled via valves with memory cells, is distinguished by the following special feature. In order to use the device directly in pneumatic computing circuits without intermediate converting elements, the memory cells are connected up in parallel to the input and output collectors (via the respective input and output valves), which are connected up to the encompassing system (sistema obeganiya), which consists of relay cells connected in series through the valves connected with an oscillator

Card 1/1

9,7140

80979
S/019/61/000/001/075/106
A154/A027

AUTHORS: Lanin, N.D., Pashintseva, V.I.

TITLE: A Pneumatic Functional Unit

PERIODICAL: Byulleten' izobreteniy, 1961, No. 1, p. 53

TEXT: Class 42m, 15. No. 134917 (647110/26 of December 12, 1959). This pneumatic functional unit is distinguished by the fact that, in order to improve the static and dynamic characteristics for obtaining a given functional dependence by the piecewise-linear approximation method, the unit contains pneumatic relays with a given operating level for connecting up the output channels of corresponding memory units having storage and summing chambers with a device for multiplying the current value of the argument, to the output collector of the unit. X

Card 1/1

32576

S 621/61/CCC CCC C11 C14

D234, D303

9,7000 (also 1159)

AUTHORS: Lanin, N.D., and Pashintseva, V I

TITLE: Methods of constructing pneumatic computers of continuous action and ways of utilizing them

SOURCE: Nauchno-tekhnicheskoye obshchestvo priborostroitel'noy promyshlennosti. Primeneniye vychislitel'noy tekhniki dlya avtomatizatsii proizvodstva. Trudy soveshchaniya, provedennogo v oktyabre 1959 g. Ed by V.V. Solodovnikov. Moscow, Mashgiz, 1961, 445 - 457

TEXT: The authors give a detailed general description of the main units of pneumatic computers. The integration bloc consists of a non-periodical link with positive feedback, in the form of a constant resistance connected in series with a variable capacitance. Equations of motion of the bloc are discussed. Three variants of the differentiating bloc are considered and their transfer functions quoted. The most usual kinds of summation bloc utilize the addition of forces due to input pressures in membrane chambers; the

Card 1/2

Methods of constructing pneumatic ..

32576
S/621/61/000/000, 111-014
D234/D303

authors state that addition of pressures in the chamber between throttles is more economical, and recommend the use of the cascade principle. The coefficient bloc is described. On the basis of the above units, a pneumatic computer was constructed, of which two modifications allow the solution of differential equations of the 6th order and the third modification those of the 9th order. A general diagram of the computer is given. The error in the solution does not exceed 3 %. There are 6 figures and 6 Soviet-bloc references *X*

Card 2/2

PASHINTSEVA, V. I.

COMPUTERS

AUTOMATION OF PRODUCTION PROCESSES BY MEANS OF COMPUTER EQUIPMENT (USSR)
(Following is the translation of an unsigned article, comprising a conference report, in
the Russian-language periodical MEKHANIZATSIIA I AVTOMATIZATSIIA PROIZVODSTVA (Mechaniza-
tion and Automation of Production), No 9, Moscow, Sep 1962, pp 56-58)

In June of the current year a conference was held on the subject of the application of computer techniques in the automation of production processes. The conference was held by the State Committee on Automation and Machine Building under the Council of Ministers USSR, the State Committee on Coordination of Scientific Research Work under the Council of Ministers RSESR, the scientific-technical society of the instrument manufacturing industry, and other organizations.

Engineers N. D. Ianin, V. G. Vygon and V. I. Pashintseva presented a report on pneumatic control machines for thermotechnique installations.

SO: JPRS: 16,410 (AUTOMATION OF PRODUCTION PROCESSES BY MEANS OF COMPUTER EQUIPMENT US.S.R)
29 Nov 62, UNCLASSIFIED

L 33418-66 EMT(1)/ETC(f) IJP(c) AT
ACC NR: AP6015297 (A, N) SOURCE CODE: UR/0057/66/036/005/0763/0776

AUTHOR: Mikhaylovskiy, A. B.; Pashitskiy, E. A.

ORG: none

TITLE: Convective excitation of ionic oscillations of a plasma by a nonuniform electron beam

SOURCE: Zhurnal tekhnicheskoy fiziki, v. 36, no. 5, 1966, 763-776

TOPIC TAGS: plasma oscillation, electron beam, instability, plasma wave, ion

ABSTRACT: The authors discuss the excitation of ionic oscillations in cylinder of homogeneous plasma in a uniform axial magnetic field by an inhomogeneous electron beam moving along the axis. Transverse velocities of the beam electrons are neglected, and it is assumed that the derivative of the distribution function of the beam electrons with respect to the longitudinal velocity is negative, so that the usual beam instability (Ya.B.Faynberg, Atomnaya energiya, 11, No. 4, 1961) does not occur. It is found that the beam can, nevertheless, give rise to ionic oscillations in the plasma by a convective mechanism, provided the beam density varies in the transverse direction. In the present paper detailed calculations are given for a beam whose density is a Gaussian function of the distance from the axis. The calculations are based on the kinetic equation, and it is assumed that the ratio of the maximum beam density to

UDC: 533.9

Card 1/2

L 33418-66

ACC NR: AP6015297

the plasma density is small. It is found that both slow beams (beam velocity lower than the thermal velocity of the plasma electrons) and fast beams can give rise to a variety of ionic oscillations with frequencies ranging from far below the ion Larmor frequency to the hybrid frequency. Conditions are found for the excitation of different types of ionic oscillations and expressions are derived for the logarithmic increments of the different oscillations. The ionic oscillations excited by a slow beam are localized in the region of the beam, whereas those excited by a fast beam may propagate throughout the plasma. Orig. art. has: 57 formulas and 3 tables.

SUB CODE: 20/ SUBM DATE: 20Ju165/ ORIG REF: 006/ OTH REF: 000

Card 2/2 *DR*

L 46329-65 EWT(1)/EPF(r)-2/ENG(m)/EPA(w)-2 P1-1/Po-1/Pz-6/Pab-10 IJP(c)

WW/AT

ACCESSION NR: AP5009217

AUTHOR: Mikhaylovskiy, A. B.; Pashitskiy, E. A.

TITLE: Kinetic current instability of Alfvén waves in a plasma with finite ion Larmor radius

SOURCE: AN SSSR. Doklady, v. 161, no. 1, 1965, 81-83

TOPIC TAGS: plasma instability, current instability, Alfvén wave, Larmor radius, kinetic instability

ABSTRACT: The authors analyze the kinetic Alfvén-wave current instability which is produced in plasma with finite Larmor radius when the velocities of relative motion of the electrons and the ions exceed the Alfvén velocity. Whereas in the ordinary hydrodynamic analysis of the Alfvén oscillations their electric field is directed transversely to the constant magnetic field, so that there is no interaction between the wave and the particle, the situation changes if the finite Larmor radius of the ions is taken into account, for then the Alfvén waves can interact with resonant particles (electrons) and can either attenuate (Landau damping) or build up (current instability). If the Alfvén oscillations interact

Card 1/2

L 46329-65

ACCESSION NR: AP5009217

with cyclotron harmonics, the increment of the current instability with a frequency close to an integer multiple of the cyclotron frequency of the ions can be appreciably larger than the increment of the potential cyclotron oscillations. "We thank B. B. Kadomtsev for a discussion of the results and useful advice." This report was presented by M. A. Leontovich. Origl art. has: 10 formulas.

2

ASSOCIATION: Institut atomnoy energii im. I. V. Kurchatova (Institute of Atomic Energy)

SUBMITTED: 15Sep64

ENCL: 00

SUB CODE: ME

NR REF Sov: 002

OTHER: 002

Card 2/2

ACC NR: ~~UR0033403~~

SOURCE CODE: UR/0057/66/036/010/1731/1736

AUTHOR: Mikhaylovskiy,A.B.; Pashitskiy,E.A.

ORG: none

TITLE: Instability of the relative motion of spatially separated electron streams in a magnetic field

SOURCE: Zhurnal tekhnicheskoy fiziki, v. 36, no. 10, 1966, 1731-1736

TOPIC TAGS: electron plasma, inhomogeneous plasma, plasma magnetic field, plasma stability, plasma electron temperature, dispersion equation

ABSTRACT: The authors discuss the stability with respect to long wavelength potential oscillations of two plasma sheets of finite thickness which meet in a thin plane transition layer and are located in a homogeneous magnetic field parallel to their plane. The wavelength of the perturbation is assumed to be long compared with the electron Larmor radius and the thickness of the transition layer, and the perturbation frequency is assumed to be low compared with the electron Larmor frequency. The motion of the ions is neglected. The calculations are based on the linearized Vlasov equation for the perturbed electron distribution function. A dispersion equation for the long wavelength oscillations is obtained with the aid of the boundary conditions for the electric potentials at the outer boundaries of the two plasma sheets (assumed to be conducting planes) and the condition for matching the potentials

UDC: 533.9

Card 1/2

ACC NR: AP6033405

at the boundary between the plasmas (derived by integrating Poisson's equation across the transition region). The dispersion equation is employed to derive stability conditions and expressions for the logarithmic increment in the case of instability, for cold plasma sheets carrying electron currents in opposite directions parallel to the applied magnetic field and for hot plasma sheets with no currents but different electron temperatures. It is found that the current carrying plasma sheets are not necessarily stable when the external magnetic field is sufficiently strong, as was asserted by Harrison and Stringer (Proc. Phys. Soc., 82, 700, 1963), but that an additional condition is required for stability, which is violated in the case of long wavelength perturbations propagating nearly transversely to the magnetic field. Orig. art. has: 25 formulas.

SUB CODE: 20 SUBM DATE: 02Oct65 ORIG.REF: 004 OTH REF: 002

Card 2/2

PASHINYAN, E.R.

Э. Р. Пашинян защищила 29/XII 1960 г. в Совете Ереванского медицинского института диссертацию на тему «Нормативы костномозгового кровотворения в условиях некоторых районов высокогорья Арmenии».

Ряд изменений, полученных при изучении костного мозга и периферической крови у исследуемых больных (бронхитов, увеличение гемоглобина и др.), проживающих в условиях высокогорья Арmenии, можно объяснить компенсаторной, физиологической способностью кроветворения организма к различным климатическим условиям.

Candidate of Medical Sciences

Dissertations approved by the Higher Attestation Commission in
January and February of 1961. Terap. arkh. no.6:117-121 '61

POGOSYAN, A.S.; AVDALBEKYAN, L.M.; PASHINYAN, E.R.; TER-OGANESEYAN, S.P.

Some data on changes in the blood coagulation factors in leprosy.
Zhur. eksp. i klin. med. 5 no.3:60-64 '65.

PASHINYAN, E. R.

Cand Med Sci - (diss) "Normal standards of medullary blood circulation under conditions of several rayons of the high mountains of Armenia." Yerevan, 1960. 17 pp; (Ministry of Public Health Armenian SSR, Scientific Research Inst of Hematology and Blood Transfusion imeni Prof R. O. Yeolyan); 250 copies; price not given; (KL, 5-61 sup, 204)

PASHINIAN, E.R.

Ecmolin therapy of certain diseases of the eye. Vest. oft. 34
no.4:34-35 J1-Aug '55. (MLRA 8:10)

1. Iz kliniki glaznykh bolezney (dir.prof. B.G. Melik-Musyan)
Yerevanskogo meditsinskogo instituta.
(EYE, diseases,
ther.ecmolin)
(ANTIBIOTICS, therapeutic use.
ecmolin, in eye dis.)

PASHINYAN, G.A.

Possibility of determining a live birth in saprogenic changes
in the lungs. Sud.-med. ekspert. ~ no. 2-22-23 Ap-Je '64.
(MIRA 17;7)

1. Kafedra sudebnay meditsiny (zav. - prof. V.M.Smol'yaninov)
II Moskovskogo meditsinskogo instituta imeni N.I.Pirogova.

PASHINYAN, G.A.

Differential diagnosis of live-born and stillborn infants
by the method of emission spectrum analysis. Sov. med.
ekspert. 6 no.42(1981) C-31 (NIRA 10-21)

I. Kafedra sotsiologicheskoy meditsiny (zav. - prof. V.M.Smol'yankov)
II. Moskovskoye gosudarstvennoye meditsinskoye institut
imeni N.I.Pirogova.

SEMAKOV, V.V., mladshiy nauchnyy sotrudnik; PASHINYAN, R.A.

Readers' letters. Zashch. rast. ot vred. i bol. 8 no.8:16 Ag
'63. (MIRA 16:10)

1. Kamchatskaya sel'skokhozyaystvennaya optytnaya stantsiya (for
Semakov). 2. M~~a~~n-rayonnyy karantinnyy inspektor, Kirovakan,
Armyanskoy SSR (for Pashinyan).

Z

SIMONIAN, A.L., AYVAGYAN, A.A.; PASHINYAN, S.A.

Hematological changes in periodic disease. Zhur. eksp. i klin. med. 5 no.1:12-18 '65.
(MIRA 12 10)

PASHISHKAVICHUS, I.I.

Pace marker. Gidroliz. i lesokhim.prom. 9 no.1:23 '55.
1.Vil'myusskiy khimleekhos.
(Tree tapping)

PASHITSKIY, E.A.

Interaction between an electron beam and a plasma in a magnetic field. Part 1: "Longitudinal" oscillations. Zhur.tekh.fiz. 33 no.1:51-57 Ja '63. (MIRA 16:2)

(Electron beams) (Plasma—Oscillations)
(Magnetic fields)

L 3450-66 EMT(1)/ETC/EPP(u)-2/ENG(m)/EPA(w)-2 IJP(c) AT
ACCESSION NR: AP5016573 UR/0056/65/048/006/1787/1795
AUTHORS: Mikhaylovskiy, A. B.; Pashitskiy, E. A. 44.55 60
TITLE: Surface waves on a current-carrying plasma 51
SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 48,
no. 6, 1965, 1787-1795 21.44.55 R

TOPIC TAGS: inhomogeneous plasma, plasma flow, plasma electromagnetic
wave, plasma oscillation, plasma structure, plasma wave propagation

ABSTRACT: The authors analyze surface oscillations in a bounded cold
plasma in which streams of charged particles move along the direction
of the constant magnetic field. General boundary conditions are de-
rived, making it possible to consider not only exchange perturbations
of the plasma, but also surface perturbations. The plasma boundary
is assumed to be sharp, such that the wavelength of the oscillations
is much larger than the thickness of the transition layer. General
boundary conditions for joining the solutions on this layer are derived,
and are used to obtain the dispersion equations for the oscillations

Card 1/2

L 3450-66

ACCESSION NR: AP5016573

9

in various particular cases. . The dielectric constant of the cold inhomogeneous plasma with the particle streams is calculated. It is shown that oblique surface waves (in which the wave vector in one direction is much larger than in the other) become unstable in the presence of particle streams, thus causing the plasma boundary to spread out. This plasma instability leads to plasma convection transverse to the magnetic field and to a smearing of the sharp boundary. The particular cases considered are potential surface waves, nonpotential oscillations when the thickness of the skin layer exceeds the thickness of the boundary layer, and surface waves in a dense plasma when the skin layer is smaller than the boundary layer. 'We thank Academician M. A. Leontovich who called our attention to this set of problems, and B. B. Kadomtsev and V. D. Shafranov for useful discussions.' Orig. art. has: 37 formulas

ASSOCIATION: None

SUBMITTED: 27Jan65

ENCL: 00

SUB CODE: ME

NR REF SOV: 006

OTHER: 000

βVK
Card 2/2

MIKHAYLOVSKIY, A.B.; PASHITSIKY, E.A.

Kinetic current instability of Alfvén waves in a plasma with
ions of a finite Larmor radius. Dokl. AN SSSR 161 no.1:81-83
Mr '65. (MIRA 18:3)

1. Institut atomnoy energii im. I.V. Kurchatova. Submitted
October 7, 1964.

PASHITSKIY, E.A.

Interaction between an electron beam and a plasma in a magnetic field. Part 2. "Transverse" oscillations. Zhur.tekh.fiz. 33 no.1:58-64 Ja '63. (MIRA 16:2)
(Electron beams) (Plasma oscillations) (Magnetic fields)

L 10658-66 EWT(1) IJP(c) AT

ACC NR: AP5028308

SOURCE CODE: UR/0057/65/035/011/1960/1971

M 44,55

44,55

AUTHOR: Nikhaylovskiy, A.B.; Pashitskiy, E.A.

ORG: none

TITLE: On the theory of the stability of an ion beam injected transversely to a magnetic field into a plasma

SOURCE: Zhurnal tehnicheskoy fiziki, v. 35, no. 11, 1965, 1960-1971

TOPIC TAGS: plasma instability, plasma beam interaction, magnetic trap, magnetic mirror, ion beam, plasma injection, plasma magnetic field

ABSTRACT: The authors discuss the stability of a nearly monoenergetic ion beam injected transversely to the magnetic field into a magnetic trap containing a plasma with a Maxwell distribution of electron and ion velocities. The discussion is applicable to the case of a trap in which ions are continuously injected, because the captured ions quickly reach a Maxwell-like velocity distribution owing to the strong instabilities that develop. The dispersion equation is derived for a monoenergetic beam and a uniform magnetic field, and the roots are derived and discussed for frequencies near harmonics of the ion Larmor frequency and for frequencies in the continuous spectrum far above the ion Larmor frequency but below the electron Larmor frequency. Oscillations near the ion Larmor frequency are found to be unstable even for very low beam densities, and even when longitudinal ion velocities and cyclotron damping are taken into account. The high frequency oscillations are stable for

Card 1/2

66
60
B

L 10658-66
ACC NR: AP5028308

2

6

sufficiently low beam density (or sufficiently high plasma density). The effect of the longitudinal inhomogeneity of the magnetic field is discussed, the frequencies of the oscillations being found by equating to an integral multiple of π the integral along a line of force between the reflection points of the longitudinal component of the wave vector. When longitudinal ion velocities and cyclotron damping are taken into account, the longitudinal inhomogeneity of the magnetic field is found to increase the critical beam density above which instability occurs. The effect of a distribution of beam ion velocities (energy inhomogeneity) is also discussed, and it is shown that this, too, tends to stabilize the system. It is concluded that in-field can excite oscillations over a wide range of frequency and wavelength, and these can give rise to large anomalous turbulent diffusion. Means exist, however, for partially stabilizing some of these oscillations. In particular, the long wavelength ion cyclotron oscillations are stabilized for sufficiently low beam density by a low plasma ion temperature, and the high frequency oscillations in the continuous spectrum are stabilized by a distribution of beam ion velocities, i.e., by the use of a non-monoenergetic beam. A curved magnetic field geometry (a magnetic mirror system or a corrugated field) reduces the increment of the unstable oscillations. The authors thank V. I. Pustunovich and A. V. Timofeyev for discussing the results. Orig. art. has: 55 formulas and 1 figure. 4/15 S

STB CODE: 20

SUBM DATE: 01Feb65/

ORIG. REF: 004

OTH REF: 000

Card 2/2

L 14851-66 EWT(1)/EIC(f)/EMG(m) IJP(c) AT
ACC NR: AP6001724 SOURCE CODE: UR/0020/65/165/004/0796/0799

AUTHORS: Mikhaylovskiy, A. B.; Pashitskiy, E. A.

ORG: Institute of Atomic Energy im. I. V. Kurchatov (Institut atomnoy energii)

TITLE: High frequency drift instability of a plasma

SOURCE: AN SSSR. Doklady, v. 165, no. 4, 1965, 796-799

TOPIC TAGS: plasma instability, inhomogeneous plasma, plasma oscillation

ABSTRACT: The authors analyze the high frequency instability which can be produced in a plasma by local differences in the electron temperature. The ratio of the Larmor radius of the ions to the characteristic dimension of the local inhomogeneity of the plasma (p_i/a) is not assumed small, as in earlier investigations, and the frequencies of the oscillations are assumed to exceed greatly the Larmor and the Langmuir ionic frequencies, so that the motion of the

Card 1/2

L 14851-66
ACC NR: AP6001724

ions does not influence the oscillations. Solution of the differential equations for the electronic oscillations of such a plasma, obtained in the optical approximation, for the case of the nonuniformly heated plasma with Maxwellian electron velocity distribution function and for the case of a mixture of two Maxwellian electron plasma with two different (constant) temperatures, shows that the high frequency instability under consideration is similar to the low-frequency drift instabilities investigated by various authors earlier. The stability limits of the two types of plasma are established. This report was presented by Academician M. A. Leontovich. Authors thank B. B. Kadomtsev and A. V. Timofeyev for a discussion of the results and M. V. Nezlin for useful discussions. Orig. art. has: 2 figures and 12 formulas.

SUB CODE: 20/ SUBM DATE: 05Mar65/ ORIG REF: 007/

Cord 2/2 ec

ALIYEV, Ye. [Aliiev, IE.]; PASHIVS'KIY, A. [Pashkivs'kyi, A.]

Plantations on rocks. Zren, ta pratsia no.3:21-22 Mr '63.
(MIRA 16:10)

Franck, A.

BARANSKIY, N.; BAKHMETSKAYA, S.; VASIL'YEVA, I.; GEDBONOV, A.; KALININ, F.;
KOTEL'NIKOV, V.; MIKHAILOV, I.; MONAKHOVA, V.; MONAKHOVA, Ye.; MONIN, S.
MOROSHKINA, O.; PASHKAICH, K.; PREOBRAZHENSKIY, A.; RAUSH, V.; SAUSHKIN,
Yu.; TEREKHOV, P.; TESSMAN, N.; BROKLI, V.

In memory of A.A.Polovinkin, N.Baranskii and others. Geog.v shkole
18 no.5:70 S-0 '55. (MIRA 8:12)
(Polovinkin, Aleksandr Aleksandrovich, 1887-1955)

GVOZDETSKIY, N.A., prof.; ZHUCHKOVA, V.K., dots.; ALISOV, B.P., prof.; VASIL'YEVA, I.V., dots.; VARLAMOVA, M.N., tekhnik-kartograf; DOLGOVA, L.S., dots.; ZVORYKIN, K.V., st. nauchnyy sotr.; ZEMTSOVA, A.I., assistent; IVANOVA, T.N.; LEBEDEV, N.P., st. prepodavatel'; LYUBUSHKINA, S.G.; NESMEYANOVA, G.Ya., mlad. nauchnyy sotr.; PASHKANG, K.V., st. prepod.; POLTARAUS, B.V., dots.; RYCHAGOV, G.I., st. prepod.; SPIRIDONOV, A.I., dots.; SMIRNOVA, Ye.D., mlad. nauchnyy sotr.; SOLNTSEV, N.A., dots.; FEDOROVA, I.S., mlad. nauchnyy sotr.; TSESEL'CHUK, Yu.N., mlad. nauchnyy sotr.; SHOST'INA, A.A., mlad. nauchnyy sotr.; Prinimali uchastiye: BELOUSOVA, N.I.; GOLOVINA, N.N.; KALASHNIKOVA, V.I.; KOZLOVA, L.V.; KARTASHOVA, T.N.; PAN'KOVA, L.I.; URKIKHO, V.; PETROVA, K.A., red.; LOPATINA, L.I., red.; YEIMAKOV, M.S., tekhn. red.

[Physicogeographical regionalization of the non-Chernozem center] Fiziko-geograficheskoe raionirovanie nechernozemnogo tsentra. Pod red. N.A.Gvozdetskogo i V.K.Zhuchkovoi. Moskva, Izd-vo Mosk. univ., 1963. 450 p. (MIRA 16:5)
(Physical geography)

PASHKANG, K.V.; VASIL'YEVA, I.V.; LYUBUSHKINA, S.G.; LAPKINA, N.A.

Landform study of a state farm territory for agricultural purposes. Vest. Mosk. un. Ser. 5: Geog. 17 no.4:6-14 Jl-Ag '62. (MIRA 16:1)

1. Geografo-biologicheskiy fakul'tet Moskovskogo gosudarstvennogo pedagogicheskogo instituta imeni V.I.Lenina.
(Kaluga Province--Landforms)

PASHKANG, K.V.

The Meshchovsk "opol'e." Vest. Mosk. un. Ser. 5: Geog. 16
no. 3:67-69 My-Je '61. (MIRA 14:5)
(Kaluga Province--Physical geography)

PASHKANG, K.V.

Karat of the Zusha River basin. Uch. zap. MGPI 120:137-148
'58. (MIRA 16:8)

VASIL'YEVA, I.V.; LAPKINA, N.A.; LYUBUSHKINA, S.G.; PASHKANG, K.V.;
RYCHAGOV, G.I.

Leading role of the lithogenic basis in landform formation.
Vest. Mosk. un. Ser. 5: Geog. 18 no.4:44-47 Jl-Ag'63.

(MIRA 17:2)

1. Geografo-biologicheskiy fakul'tet Moskovskogo gosudarstvennogo
pedagogicheskogo instituta imeni Lenina.

PASHYANG, F. V.

"The Zusha River Basin. (Physicogeographic Characteristics)." Moscow State Pedagogic Inst imeni V. I. Lenin, Moscow, 1955. (Dissertation for the Degree of Candidate of Geographical Sciences)

SO: Knizhnaya Letopis', No. 22, 1955, pp 93-105

YAKOVLEVA, N.N.; PASHKAR', S.I.

Possibility of infecting isolated potato sprouts with the pathogen
of the potato wart. Zashch.rast.ot vred.i bol. 7 no.5:52-53
My '62. (MIRA 15:11)

1. Vsesoyuznaya stantsiya po raku kartofelya, g. Chernovtsy.
(Potato wart)

LIPSITS, D.V.; PASHKAR', S.I.; REYNGARD, T.A.

Biochemical characteristics of wart resistance in potatoes.
Biokhim. pl. i ovoshch. no.4:143-163 '58. (MIRA 11:10)

1. Vsesoyuznaya nauchno-issledovatel'skaya stantsiya po raku
kartofelya Ministerstva sel'skogo khozyaystva SSSR.
(Potato wart)

17(3)

SOV/20-126-2-56/64

AUTHORS: Pashkar', S. I., Reyngard, T. A.

TITLE: On the Destruction and Transformation of Heteroauxine by
Tissues of Different Potato Organs (O razrushenii i prevrashchenii
heteroauxina tkanyami razlichnykh organov kartofelya)PERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol 126, Nr 2, pp 429-431
(USSR)ABSTRACT: Tissues of higher and lower plants are able to destroy the
 β -indolyl-acetic acid (IAA) (Refs 1-11 et al). The fermentative
character of this process is often assumed. The destruction
mechanism of heteroauxine has, however, hitherto not been
confirmed. Moreover, the views in publications concerning
the influence of the age of the tissue on the destruction
capacity of the IAA are conflicting (Refs 7-11). The authors
carried out an experimental series with healthy potatoes and
those affected with cancer (Refs 12, 13) in 1957-58 which
was bound to clarify the topic mentioned in the title. The
infusions of fine-cut plant material were colorimetrically
(Tables 1, 2), and chromatographically investigated. The ob-
tained results speak in favor of a considerable destruction
degree of heteroauxine by tissues of all investigated organs

Card 1/3

SOV/20-126-2-56/64

On the Destruction and Transformation of Heteroauxine by Tissues of Different
Potato Organs

of the potato plant. Leaves and buds exercised the strongest effect. Cancerous tumors exercised their strongest effect in their meristematic parts of the upper parts of the germs and in the peripheral part of the tumors. The colorimetric results were confirmed by chromatographic ones (Table 4). A previous exposure of the tissue to a temperature of 100° during 10 minutes reduced or eliminated the destruction of heteroauxine. A previous treatment of the germinal tissue with 0.001 M mercury nitrate solution had a similar result. The colorimetric and chromatographic results prove that the destruction process of heteroauxine can proceed in a different way. A new indene derivative is produced in the case of the heteroauxine destruction. The authors investigated it for a possible growth-promoting effect like in the case of heteroauxine. Table 5 shows that the increase of the coleoptile sections was stimulated by this. Thus the potato tissues contain a factor which is not able to destroy the indene ring of heteroauxine but transforms it into a new indene derivative. Young growing potato tissues transform the heteroauxine to a more considerable extent than older ones. There are 5 tables

Card 2/3

On the Destruction and Transformation of Heteroauxine by Tissues of Different Potato Organs

SOV/20-126-2-56/64

and 19 references, 3 of which are Soviet.

ASSOCIATION: Stantsiya po raku kartofelya Vsesoyuznogo instituta zashchity rasteniy
(Center of Potato Cancer of the All-Union Institute of Plant Protection)

PRESENTED: February 25, 1959, by A. L. Kursanov, Academician

SUBMITTED: September 2, 1958

Card 3/3

PASHKAR", S. I. Cand Biol Sci -- (diss) " Study of the physiological role of polyphenol compounds in the potato in connection with the study of the nature of its canker resistance." Chernovtsy, 1959. 19 pp with drawings (Min of Higher and Secondary Specialized Education UkrSSR. Chernovtsy State Univ. Chair of Physiology of Plants), 150 copies (KL, 45-59, 145)

KHIZHNYAK, P.A.; PASHKAR', S.I.; YAKOVLEVA, N.N.

Regenerative capacity of potatoes. Zashch.rast.ot vred.i bol.
(MIRA 16:1)
5 no. 7:47-48 Jl '60.

1. Vsesoyuznaya stantsiya po raku kartofelya Vsesoyuznogo
instituta zashchity rasteniy, g. Chernovtsy.
(Potato beetle) (Regeneration (Botany))

PASHKAR', S.I.

On the transformations of chlorogenic and caffeic acids taking place in the course of ripening and germination of potato tubers.
Dokl. AN SSSR. 118 no.4:833-836 F '58. (MIRA 11:4)

1. Vsesoyuznaya nauchno-issledovatel'skaya stantsiya po raku kartofelya g. Chernovtsy. Predstavleno akademikom A.L. Kirsanovym.
(Potatoes) (Chlorogenic acid) (Caffeic acid)

AUTHOR: Pashkar', S. I. 20-118-4-58/61

TITLE: On the Dynamics of Chlorogenic and Caffeic Acids in the Ripening and Germination Process of Potato Tubers
(K dinamike khlorogenovoy i kofeynoy kislot pri sozrevanii i prorastanii klubnya kartofeliya)

PERIODICAL: Doklady Akademii Nauk SSSR, 1958, Vol. 118, Nr 4, pp.833-836
(USSR)

ABSTRACT: The chlorogenic acid is supposed to take part in the protective mechanism of the potato plant against scab (reference 5). Simultaneously it is supposed to play a certain part in the final oxidative system of the tuber (reference 6). By means of chromatography the author investigated the phenol compounds of the potato in connection with its resistance against cancer. With that he noticed in the tubers a peculiar regularity of the two acids mentioned in the title above. He analyzed the peel which was about 1 millimeter thick and its eyes (buds), the cellular tissue of the tubers, and the sprouts which did not contain chlorophyll and were from 2 to

Card 1/5

On the Dynamics of Chlorogenic and Caffeic Acids in the Ripening and Germination Process of Potato Tubers

20-118 4-58/61

3 centimeters long, of 12 different species. The methodology is described. Results. A) Peel. All chromatograms of the peel extract showed a spot of caffeic acid besides chlorogenic acid. In young, (July, early August) small tubers chlorogenic acid shows up more intensively than caffeic acid. At the end of August both spots were equal. In ripe preserved tubers (October-April) the spots of caffeic acid were more intensive than those of chlorogenic acid (figure 1). B.) Cellular tissue of the tubers. Caffeic acid does not show up, chlorogenic acid is visible as a faint spot only in young tubers. C.) Embryos. More phenol substances are found here than in the tubers (reference 9). Their qualitative composition is more manifold. Caffeic acid did never occur. The spot of chlorogenic acid was distinct (figure 1). This accords with the high proportion of hydroxyl in an ortho-position within the embryos (colorimetrically determined according to reference 10). The mentioned dynamics were found in each of the 12 investigated species. Thus in the tuber peel of the ripening tubers caffeic acid is accumulated whilst the pro-

Card 2/5

20-118-4-58/61

On the Dynamics of Chlorogenic and Caffeic Acids in the Ripening and Germination Process of Potato Tubers

the potato tubers. When the tuber is roused from the state of rest it seems that besides the increase of the auxine quantity in the eye region the synthesis mechanism of the chlorogenic acid at the expense of caffeic acid is of great importance. In the embryos this is particularly obvious. In order to recognize this mechanism it is necessary to investigate the influence of those substances that artificially interrupt or prolong the state of rest upon the dynamics of the two acids mentioned above. It seems to be impossible to trace back the physiological character of the rest period to one factor (reference 15). There are 1 figure, and 16 references, 7 of which are Soviet.

ASSOCIATION: All-Union Scientific Research Station for Potato Cancer, Chernovtsy (Vsescyuznaya nauchno-issledovatel'skaya stantsiya po raku kartofelya g. Chernovtsy)

Card 4/5

17(1)

AUTHOR:Pashkar', S. I.

307/20-124-7-63, 67

TITLE:

Dynamics of the Polyphenols in the Healing Process of Lesions in Potatoes (Dinamika polifenolov v protsesse zazhivleniya poraneniy u kartofelya)

PERIODICAL:

Doklady Akademii nauk SSSR, 1959, Vol 124, Nr 3, pp 715-718 (USSR)

ABSTRACT:

In the healing of a cut in a potato tuber, various physiological and biochemical changes take place (Refs 1-12). The study of the problem mentioned in the title was of interest in view of the increase in respiratory intensity and of the higher activity of the oxidative ferments, in so far as these polyphenols participate in redox transformations in plants. The paper under review presents several new facts discovered by the author in his experiments (1956-57) concerning the regeneration of tubers and germs. Tubers of the strains Vale, Wohltmann (Vol'tman), Grenzmark (Grentsmark) and Carnea (Karnea) were peeled and cut into quarters, which the author placed in cuvettes with a moist atmosphere and maintained in the dark at 18-20° for 1, 3, 6, 11, and 16 days. The regenerating tuber surface (about 1.5 mm thickness) was then analyzed. At the same time, the tuber flesh of intact tubers was investigated. The phenol substances were determined by the method given in reference 23.

Card 1/3

SOV/20-124-3-67 67

Dynamics of the Polyphenols in the Healing Process of Lesions in Potatoes

The result is presented in table 1. In the course of the healing of the cut, phenol compounds accumulate in the regenerated tissues. Of particular interest is the emergence of alkali-soluble phenols in the newly-formed cork tissues. These phenols do not occur at all in the flesh of intact tubers, and are present only in the peel of a normal tuber. Paper chromatography was used to demonstrate which components of the polyphenol substances are the sources of the phenols accumulated in the regenerating tissues. The technique employed has been described on an earlier occasion (Ref 25). In the carrying-out of the present study, 96° ethanol was used, in addition to acetone, for the extraction of the polyphenols. The chromatograms were developed with Gepfner's reagent (Table 1, Figs 1 and 2). An important phenomenon is the emergence of caffeic acid in the regenerative tissues formed after the lesion, as this substance does not normally occur in the intact tubers or in the growing germs. It is a striking fact that the more caffeic acid is accumulated in the new regenerating "peel" the more days have lapsed since the date of the infliction of the lesion, i.e. the more complete the healing and formation of this "peel" has grown. The morphological "restoration" of the lost peel was accompanied by a "restoration" of the lost polyphenols Chlorogenic acid,

Card 2/3